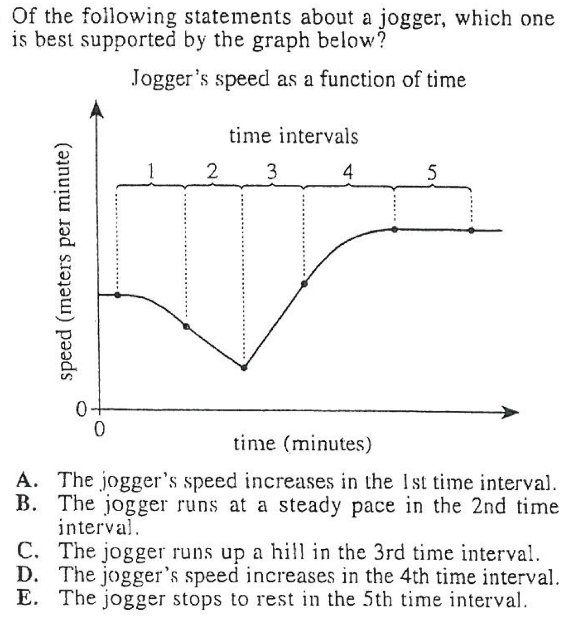
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_\_\_

HW 22: Rate of Change

**Honors Geometry**

1. At noon, my odometer read 6852 miles. At 3:30 pm, it read 7034 miles.
   1. What was my average rate of change during these three and a half hours?
   2. Let *t* represent the number of hours I have been driving since noon and *y* represent my odometer reading. Write an equation that relates *y* and *t*. Assume constant speed.
   3. Graph your equation.
   4. Show that the point (5,7112) is on your line, and then interpret this point in the context of this problem.
2. Of the following statements about a jogger, which one is best supported by the graphs below?



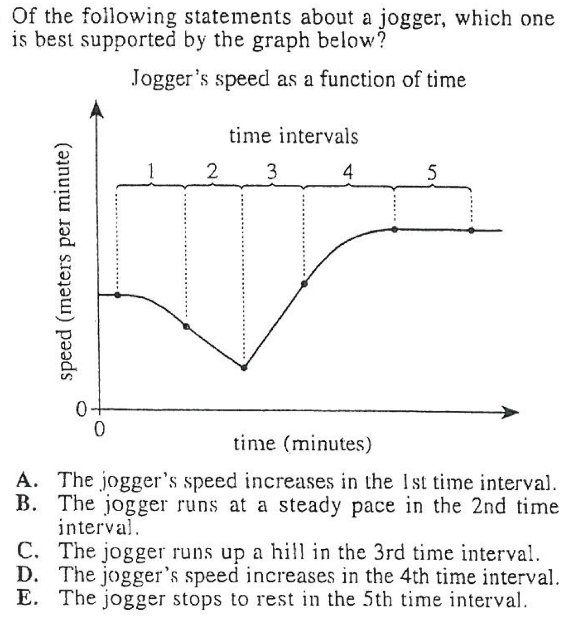
1. The jogger’s speed increased in the 1st time interval.
2. The jogger runs at a steady pace in the 2nd time interval.
3. The jogger runs up a hill in the 3rd time interval.
4. The jogger’s speed increases in the 4th time interval.
5. The jogger stops to rest in the 5th time interval.
6. In 1900, 35% of families owned pets. In 1955, 85% of families owned pets. Find the rate of change of families who owned pets per year. Write your answer in a complete sentence.
7. It takes a certain plane 25,000 feet to land if it has an altitude of 8,000 feet. What is the slope of the line describing the plane’s landing?

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_\_\_

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